

(12) Applications for control stations operating below 470 or above 800 MHz and meeting the requirements of § 90.119(a)(2)(ii).

(13) Applications for frequencies in the 216–220 and 1427–1435 MHz bands.

(14) Applications for frequencies in the 220–222 MHz band.

(15) Applications timely-filed by recipients of a finder's preference, where the applicant intends to operate at the same site location, and with the same technical parameters as the prior licensee.

(g) Application for modification of license that only involves a change in the number of mobile transmitters or paging receivers from that authorized, except for systems operating on non-exclusive assignments in the 470–512 MHz, 800 MHz or 900 MHz bands, need not be accompanied by evidence of frequency coordination, but a copy of these applications must be sent to the applicable frequency coordinator at the same time they are filed with the Commission.

[51 FR 14998, Apr. 22, 1986, as amended at 51 FR 36014, Oct. 8, 1986; 53 FR 1024, Jan. 15, 1988; 54 FR 4030, Jan. 27, 1989; 54 FR 39740, Sept. 28, 1989; 56 FR 19602, Apr. 29, 1991; 56 FR 65859, Dec. 19, 1991; 57 FR 48739, Oct. 28, 1992; 57 FR 60135, Dec. 18, 1992; 58 FR 62291, Nov. 26, 1993; 60 FR 37261, July 19, 1995]

§ 90.176 Interservice sharing of frequencies in the 150–174 and 450–470 MHz bands.

(a) Entities eligible in the Public Safety Radio Services governed by this rule part may apply to use any of the 150–174 and 450–470 MHz frequencies allocated to these services. Applicants are required to make the showing set forth in paragraph (c) of this section.

(b) Entities eligible in the Special Emergency Radio Service or the Industrial and Land Transportation Radio Services governed by this rule part may apply to use any of the above-mentioned frequencies allocated to these services. Applicants are required to make the showing set forth in paragraph (c) of this section.

(c) Applications for frequencies available under this rule must be accompanied by:

(1) A determination by the applicable frequency coordinator that there are no satisfactory frequencies available

within the applicant's own radio service in the area of desired operation;

(2) A demonstration that the frequency(ies) requested in another radio service are not assigned in that radio service in the area of desired operation;

(3) A statement from the frequency coordinator having responsibility for coordination in the radio service or group in which the frequency is assigned concurring in its assignment in the manner requested. In cases where concurrence is not given, the coordinator must provide an explanation why the requested sharing is inappropriate;

(4) A statement or showing that the proposed use of the assignment will not violate any of the technical limitations applicable in the service or services to which the frequency is regularly allocated.

(d) Provisions governing the assignment and use of frequencies in the 450–470 MHz band for secondary fixed operations are provided in § 90.261.

(Secs. 4, 303, 307, 48 Stat., as amended, 1066, 1082, 1083; 47 U.S.C. 154, 303, 307)

[46 FR 55704, Nov. 12, 1982, as amended at 51 FR 14998, Apr. 22, 1986; 54 FR 39740, Sept. 28, 1989; 57 FR 24992, June 12, 1992; 58 FR 12181, Mar. 3, 1993]

§ 90.177 Protection of certain radio receiving locations.

This section pertains to applications for new or modified authorizations in the vicinity of the National Radio Astronomy Observatory, Green Bank, Pocahontas County, WV, the Naval Radio Research Observatory, Sugar Grove, Pendleton County, WV, the Table Mountain Radio receiving zone, Boulder, CO, the Federal Communications Commission monitoring stations and other protected sites.

(a) Any applicant for a new permanent base or fixed station, or for a modification of an existing authorization which would change the frequency, power, antenna height, directivity, or location within the boundaries described in paragraph (b) of this section shall notify the Director, National Radio Astronomy Observatory, P.O. Box 2, Green Bank, WV 24944, in writing, of the technical parameters of the proposal.

(1) The notification shall be made prior to, or simultaneously with the

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filing of the application with the Commission.

(2) The notification shall state the geographical coordinates of the antenna, antenna height, antenna directivity, proposed frequency, type of emission, and effective radiated power.

(3) After receipt of such applications, the Commission will allow a period of 20 days for comments or objections in response to the notifications indicated. If an objection to the proposed operation is received during the 20-day period from the National Radio Astronomy Observatory for itself or on behalf of the Naval Radio Research Observatory, the Commission will consider all aspects of the problem and take whatever action is deemed appropriate.

(4) The provisions of this paragraph do not apply to applications for mobile, temporary base, or temporary fixed stations.

(b) The area of concern for the National Radio Astronomy Observatory or the Naval Radio Research Observatory is the area bounded by 39°15' N. on the north, 78°30' W. on the east, 37°30' N. on the south, and 80°30' W. on the west.

(c) Protection for Table Mountain Radio Receiving Zone, Boulder County, Colorado. Applicants for a station authorization to operate in the vicinity of Boulder County, Colorado under this part are advised to give due consideration, prior to filing applications, to the need to protect the Table Mountain Radio Receiving Zone from harmful interference. These are the research laboratories of the Department of Commerce, Boulder County, CO. To prevent degradation of the present ambient radio signal level at the site, the Department of Commerce seeks to ensure that the field strengths of any radiated signals (excluding reflected signals) received on this 1800 acre site (in the vicinity of coordinates 40°07'50" N Latitude, 105° 14'40" W Longitude) resulting from new assignments (other than mobile stations) or from the modification or relocation of existing facilities do not exceed the following values:

Frequency range	Field strength (millivolt per meter) in authorized bandwidth of service	Power flux density ¹ (dBW per square meter) in authorized bandwidth of service
Below 540 kHz	10	65.8
540 to 1600 kHz	20	59.8
1.6 to 470 MHz	10	65.8
470 to 890 MHz	30	56.2
Above 890 MHz	1	85.8

¹Equivalent values of power flux density are calculated assuming free space characteristic impedance of $376.7=120\pi$ ohms.

(1) Advance consultation is recommended particularly for those applicants who have no reliable data which indicates whether the field strength or power flux density figures in the above table would be exceeded by their proposed radio facilities (except mobile stations). In such instances, the following is a suggested guide for determining whether coordination is recommended:

(i) All stations within 2.4 km (1.5 statute miles);

(ii) Stations within 4.8 km (3 statute miles) with 50 watts or more effective radiated power (ERP) in the primary plane of polarization in the azimuthal direction of the Table Mountain Radio Receiving Zone;

(iii) Stations within 16 km (10 statute miles) with 1 kW or more ERP in the primary plane of polarization in the azimuthal direction of the Table Mountain Receiving Zone;

(iv) Stations within 80 km (50 statute miles) with 25 kW or more ERP in the primary plane of polarization in the azimuthal direction of the Table Mountain Receiving Zone.

(2) Applicants concerned are urged to communicate with the Radio Frequency Management Coordinator, Department of Commerce, Research Support Services, NOAA R/E5X2, Boulder Laboratories, Boulder, CO 80303; telephone (303) 497-6548, in advance of filing their applications with the Commission.

(3) The Commission will not screen applications to determine whether advance consultation has taken place. However, applicants are advised that such consultation can avoid objections

from the Department of Commerce or proceedings to modify any authorization which may be granted which, in fact, delivers a signal at the site in excess of the field strength specified herein.

(d) Protection for Federal Communications Commission monitoring stations:

(1) Applicants in the vicinity of an FCC monitoring station for a radio station authorization to operate new transmitting facilities or changed transmitting facilities which would increase the field strength produced over the monitoring station over that previously authorized are advised to give consideration, prior to filing applications, to the possible need to protect the FCC stations from harmful interference. Geographical coordinates of the facilities which require protection are listed in §0.121(c) of the Commission's Rules. Applications for stations (except mobile stations) which will produce on any frequency a direct wave fundamental field strength of *greater than 10 mV/m* in the authorized bandwidth of service (-65.8 dBW/m^2 power flux density assuming a free space characteristic impedance of 120 times π , or 377, ohms) at the referenced coordinates, may be examined to determine extent of possible interference. Depending on the theoretical field strength value and existing root-sum-square or other ambient radio field signal levels at the indicated coordinates, a clause protecting the monitoring station may be added to the station authorization.

(2) In the event that calculated value of expected field exceeds 10 mV/m (-65.8 dBW/m^2) at the reference coordinates, or if there is any question whether field strength levels might exceed the threshold value, advance consultation with the FCC to discuss any protection necessary should be considered. Prospective applicants may communicate with: Chief, Compliance and Information Bureau, Federal Communications Commission, Washington, DC 20554, Telephone (202) 632-6980.

(3) Advance consultation is suggested particularly for those applicants who have no reliable data which indicates whether the field strength or power flux density figure indicated would be

exceeded by their proposed radio facilities (except mobile stations). In such instances, the following is a suggested guide for determining whether an applicant should coordinate:

(i) All stations within 2.4 kilometers (1.5 statute miles);

(ii) Stations within 4.8 kilometers (3 statute miles) with 50 watts or more average effective radiated power (ERP) in the primary plane of polarization in the azimuthal direction of the Monitoring Stations;

(iii) Stations within 16 kilometers (10 statute miles) with 1 kW or more average ERP in the primary plane of polarization in the azimuthal direction of the Monitoring Station;

(iv) Stations within 80 kilometers (50 statute miles) with 25 kW or more average ERP in the primary plane of polarization in the azimuthal direction of the Monitoring Station.

(4) Advance coordination for stations operating above 1000 MHz is recommended only where the proposed station is in the vicinity of a monitoring station designated as a satellite monitoring facility in §0.121(c) of the Commission's Rules and also meets the criteria outlined in paragraphs (d)(2) and (3) of this section.

(5) The Commission will not screen applications to determine whether advance consultation has taken place. However, applicants are advised that such consultation can avoid objections from the Federal Communications Commission or modification of any authorization which will cause harmful interference.

(e) In the band 420 to 450 MHz, applicants should not expect to be accommodated if their area of service is within 160 kilometers (100 miles) of the following locations:

- (1) 45°45' N., 70°32' W,
- (2) 64°17' N., 149°10' W,
- (3) 48°43' N., 97°54' W;

within 200 kilometers (124 miles) of the following locations:

- (1) 32°38' N., 83°35' W,
- (2) 31°25' N., 100°24' W;

within 240 kilometers (150 miles) of the following location:

- (1) 39°08' N., 121°26' W;

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within 320 kilometers (200 miles) of the following locations:

- (1) 28°21' N., 80°43' W,
- (2) 30°30' N., 86°30' W,
- (3) 43°09' N., 119°11' W;

or in the following locations:

- (1) The state of Arizona,
- (2) The state of Florida,
- (3) Portions of California and Nevada south of 37°10' N,
- (4) And portions of Texas and New Mexico bounded by 31°45' N., 34°30' N., 104°00' W. and 107°30' W.

(Secs. 4, 303, 307, 48 Stat., as amended, 1066, 1082, 1083; 47 U.S.C. 154, 303, 307)

[43 FR 54791, Nov. 22, 1978, as amended at 44 FR 77167, Dec. 31, 1979; 47 FR 34420, Aug. 9, 1982; 49 FR 32770, Aug. 16, 1984; 50 FR 39003, Sept. 25, 1985; 54 FR 38680, Sept. 20, 1989; 54 FR 39740, Sept. 28, 1989; 61 FR 8478, Mar. 5, 1996]

§90.179 Shared use of radio stations.

Licensees of radio stations authorized under this rule part may share the use of their facilities. A station is shared when persons not licensed for the station control the station for their own purposes pursuant to the licensee's authorization. Shared use of a radio station may be either on a non-profit cost shared basis or on a for-profit private carrier basis. Shared use of an authorized station is subject to the following conditions and limitations:

(a) Persons may share a radio station only on frequencies for which they would be eligible for a separate authorization.

(b) The licensee of the shared radio station is responsible for assuring that the authorized facility is used only by persons and only for purposes consistent with the requirements of this rule part.

(c) Participants in the sharing arrangement may obtain a license for their own mobile units (including control points and/or control stations for control of the shared facility), or they may use mobile stations, and control stations or control points authorized to the licensee.

(d) If the licensee shares the land station on a non-profit, cost shared basis to the licensee, this shared use must be pursuant to a written agreement between the licensee and each participant

which sets out (1) the method of operation, (2) the components of the system which are covered by the sharing arrangements, (3) the method by which costs are to be apportioned, and (4) acknowledgement that all shared transmitter use must be subject to the licensee's control. These agreements must be kept as part of the station records.

(e) If the land station which is being shared is interconnected with the public switched telephone network, the provisions of §90.477 *et seq.* apply.

(f) Above 800 MHz, shared use on a for-profit private carrier basis is permitted only by SMR, Private Carrier Paging, and LMS licensees. See subparts M, P, and S of this part.

(g) The provisions of this section do not apply to licensees authorized to provide commercial mobile radio service under this part.

[48 FR 26620, June 9, 1983, as amended at 51 FR 36014, Oct. 8, 1986; 53 FR 12156, Apr. 13, 1988; 54 FR 4030, Jan. 27, 1989; 54 FR 38681, Sept. 20, 1989; 57 FR 48739, Oct. 28, 1992; 59 FR 59965, Nov. 21, 1994; 60 FR 15252, Mar. 23, 1995]

§90.185 Multiple licensing of radio transmitting equipment in the mobile radio service.

Two or more persons eligible for licensing under this rule part may be licensed for the same land station under the following terms and conditions.

(a) Each licensee complies with the general operating requirements set out in §90.403 of the rules.

(b) Each licensee is eligible for the frequency(ies) on which the land station operates.

(c) If the multiple licensed base station is interconnected with the public switched telephone network, the provisions of §90.477 *et seq.* apply.

[48 FR 26621, June 9, 1983]

Subpart I—General Technical Standards

§90.201 Scope.

This subpart sets forth the general technical requirements for use of frequencies and equipment in the radio services governed by this part. Such requirements include standards for acceptability of equipment, frequency